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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,455	11/07/2001	Masaei Tsurumaki	520373.90239	4308
26710	7590	02/25/2004	EXAMINER	
QUARLES & BRADY LLP 411 E. WISCONSIN AVENUE SUITE 2040 MILWAUKEE, WI 53202-4497			PASSANITI, SEBASTIANO	
		ART UNIT	PAPER NUMBER	
		3711		

DATE MAILED: 02/25/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/045,455	TSURUMAKI, MASAEI
Examiner	Art Unit	
Sebastiano Passaniti	3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 26 January 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 3 and 6-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 3 and 6-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

This Office action is responsive to communication received 01/26/2004 – Request for RCE and Amendment B.

Claims 3, 6, 7, and 8 remain pending.

Following is an action on the MERITS:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 6, 7 and 8 are rejected under 35 U.S.C. 102(e)/103(a) as being unpatentable over Poynor in view of Kobayashi ('998), Motomiya and Zebelean. The claims are designated as rejected under 102(e)/103 in view of the fact that Poynor was filed prior to applicant's filing date and thus qualifies first as prior art under 102(e). The patent to Poynor lacks a plurality of metal shells. Each of Kobayashi, Motomiya and Zebelean show it to be old in the art to fabricate a hollow metallic club head using a plurality of shells that are subsequently welded or otherwise attached together. For

example, Kobayashi shows distinct crown, face and sole/side shell pieces (Figure 4). For instance, Zebelean notes that the hollow club head may be formed of two or more pieces may be cast and secured together, with the number of parts directly affecting the cost of the operation (column 5, lines 29-37). By way of another example, Motomiya shows a variety of arrangements wherein the club head may comprise two or three shell pieces formed by forging or casting techniques (Figures 2, 3). In view of the patents to Kobayashi, Zebelean and Motomiya, it would have been obvious to modify the device in the cited art reference to Poynor by fabricating the club head from a plurality of shell pieces based upon the specific manufacturing process used and the cost constraints of the head. Regarding the claimed blasting process, Poynor notes that a shot peening operation is used on the inner face shell to adjust the face thickness thereof. See column 5, lines 3-23 in Poynor. With respect to claim 8, Zebelean obviates the discretionary thickening of the various walls of the club head in order to alter the weight distribution of the head. The claimed arrangement of shell thickness requirements is merely deemed to be an obvious design variant over the Poynor reference as modified by the Zebelean device, since it is clear that an infinite number of combinations of shell thicknesses are readily available when assembling a hollow club head. There is no unobvious purpose for the claimed shell thickness of each of the face, sole and crown. In other words, the instant claimed device provides for the shifting and placement of the center of gravity as desired by the club maker. Likewise, the combined teachings of the Poynor and Zebelean devices accord the skilled artisan with the option of relocating the center of gravity as needed.

Claims 3, 6 and 7 STAND and claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vista in view of Kobayashi ('998), Motomiya, Zebelean, Peterson and Taiwan Patent Nos: 055904 and 391359. Specific to claims 3, 6 and 7, Viste discloses the invention substantially as claimed and includes at least two distinct shell pieces (face and crown sections) attached together to form a club head structure and further including a process to remove a thickness from the interior metal shell. Viste lacks an explicit showing of a plurality of shell pieces that specifically include a face shell, crown shell, sole shell and peripheral side shell. In addition, Viste does not specifically mention "blast grinding". Rather, Viste notes that the interior of the striking plate is dimensioned to have grooves through any one of a hot or cold stamping, forging or swaging operation (col. 2, lines 23-28). Each of Kobayashi, Motomiya and Zebelean show it to be old in the art to fabricate a hollow metallic club head using a plurality of shells that are subsequently welded or otherwise attached together. For example, Kobayashi shows distinct crown, face and sole/side shell pieces (Figure 4). For instance, Zebelean notes that the hollow club head may be formed of two or more pieces may be cast and secured together, with the number of parts directly affecting the cost of the operation (column 5, lines 29-37). By way of another example, Motomiya shows a variety of arrangements wherein the club head may comprise two or three shell pieces formed by forging or casting techniques (Figures 2, 3). In view of the patents to Kobayashi, Zebelean and Motomiya, it would have been obvious to modify the device in the cited art reference to Vista by fabricating the club head from a plurality of shell

pieces based upon the specific manufacturing process used and the cost constraints of the head. With respect to the specific, claimed "blast grinding", the reference to Peterson obviates the use of any one of a number of common finishing operations such as grinding and sand blasting (column 1, lines 57-65). In addition, the prior art Taiwanese patents provided by the applicant (IDS received 07/31/2003) disclose that blasting is a common form of grinding used to adjust the thickness of an object. As the applicant indicates that shot or sand material may be used in the blasting operation and since Peterson indicates that sand blasting and grinding are commonly used to improve the appearance of the head, and since the Taiwanese patents reference blasting as a common form of grinding, it would have been obvious to simply take advantage of a blast grinding technique in place of the formats used by Viste to form the internal grooves on the striking plate in order to make use of another commonly available operation that is useful for altering the thickness of an object. Specific to claim 8, Zebelean obviates the discretionary thickening of the various walls of the club head in order to alter the weight distribution of the head. The claimed arrangement of shell thickness requirements is merely deemed to be an obvious design variant over the Viste reference as modified by the Zebelean device, since it is clear that an infinite number of combinations of shell thicknesses are readily available when assembling a hollow club head. There is no unobvious purpose for the claimed shell thickness of each of the face, sole and crown. In other words, the instant claimed device provides for the shifting and placement of the center of gravity as desired by the club maker. Likewise,

the combined teachings of Viste and Zebelean device accord the skilled artisan with the option of relocating the center of gravity as needed.

#### RESPONSE TO ARGUMENTS

In the arguments received 01/26/2004, the applicant contends that the processes disclosed by the prior art reference to Viste, namely hot or cold pressing, forging and swaging, are fundamentally different manufacturing processes as compared to the blast grinding of the claimed invention. In addition, the applicant alleges that the grooves on the interior face in Viste serve no apparent purpose and do not serve to vary the thickness of the face panel. The applicant contends that none of Kobayashi, Motomiya and Zebelean detail a blasting process and that the Peterson reference only discloses a sand blasting operation for the external portions of the head. Last, the applicant indicates that the patents from Taiwan only disclose blasting as a general process.

In response to these arguments, it is noted that the applicant appears to be separately attacking the teachings of each piece of prior art. One cannot show non-obviousness by attacking the references individually where, as is the case here, the rejection is based on a combination of references. See In re Young, 159 USPQ 725 (CCPA 1968). The issue of patentability from an obviousness point of view must consider what would have been obvious to one of ordinary skill in the art at the time of the invention in light of all of the prior art teachings considered as a whole, not in light of the teaching of the first references and then in light of the separate teaching of a second reference. See In re Kuderna, 165 USPQ 575 (CCPA 1970). In this case, the primary

prior art reference to Viste used in one of the outstanding rejections lacks any recognition of blast grinding for varying the thickness of the shell elements of the head. The teaching references to Motomiya, Kobayashi and Zebelean together recognize the commonness of assembling a hollow metal club head using a plurality of separately formed shells that are subsequently joined together. Motomiya, Zebelean and Kobayashi are hence not relied upon to teach a blast grinding operation. On the other hand, the Peterson reference along with the prior art documents from Taiwan are recognized for their combined teachings of the commonness for using a blasting or grinding operation to shape an object. Irregardless of whether the inside or outside of an object, in this case a golf club head, is being processed, the fact remains that a grinding or blasting operation is an available resource for the skilled artisan to take advantage of when shaping an object. Here, the applicant has not disclosed any unobvious purpose for the blasting operation. The combined disclosures of the teaching references would be sufficient to motivate the skilled artisan to modify the Viste reference by fashioning the grooves on the interior face portion using a process other than hot or cold pressing, swaging or forging. Moreover, any change in thickness, i.e., a change in the groove pattern on the rear of the clubface, must create a change in club weight distribution.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kosmatka shows a club head formed from a plurality of shell pieces and including a front face having a thickened central region at the rear thereof.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sebastiano Passaniti whose telephone number is 703-308-1006. The examiner can normally be reached on Mon-Fri (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Passaniti  
Sebastiano Passaniti  
Primary Examiner  
Art Unit 3711

S.Passaniti/sp  
February 23, 2004